ABSTRACT

Filtering trees for selectively notifying subscribers of events are provided, and are constructed with OR nodes to substantially reduce their size. The filtering trees have nodes representing event variables that ultimately branch to leaf nodes thereunder, and the leaf nodes identify which of a set of queries are satisfied by an actual event. A mechanism recursively merges nodes of trees into a single tree, and uses OR nodes when nodes cannot be combined, to essentially add a parallel path in the resulting tree to traverse. Nodes that can be combined are those that represent the same event variable, and may have data points that are merged into a combined node. Threshold gains in efficiency may be evaluated to determine whether the original trees should be kept instead of the resulting tree.

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